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Description of Documents Transmitted: RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF; APPEAL BRIEF

Applicant: N.D. Barret et al.
Serial No.:   09/513,859
Filed: February 28, 2000
Group Art Unit: 3626
Docket No.:   SJO000031US1

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	N.D. Barret et al.	Examiner:	Vanel Frenel
Serial No.:	09/513,859	Group Art Unit:	3626
Filed:	February 28, 2000	Docket No.:	SJO000031US1
TITLE:	METHOD, SYSTEM, AND PROGRAM FOR ELECTRONICALLY MAINTAINING MEDICAL INFORMATION BETWEEN PATIENTS AND PHYSICIANS		

CERTIFICATE UNDER 37 CFR 1.8:
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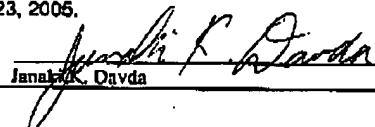
Janaki K. Davda

RESPONSE TO NOTIFICATION OF

NON-COMPLIANT APPEAL BRIEF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Examiner:

In the Notification of Non-Compliant Appeal Brief, the Examiner objected to the Summary. Applicants' are submitting a revised Appeal Brief in which the Summary has been modified to include a description of additional claims (including claims 11, 12-15, 19-21, and 23). Applicants' respectfully request entry of this revised Appeal Brief.

Dated: June 23, 2005
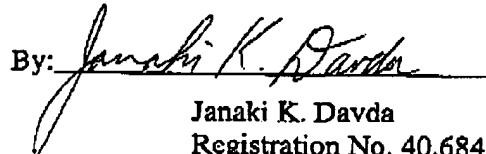
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In the United States Patent and Trademark Office

Board of Patent Appeals and Interferences

· Appeal Brief

In re the Application of:

Neale D. Barret, Jennifer Eaton,
Joy Nakamura, and Deanna M. Shaw
Serial No. 09/513,859
Filed: February 28, 2000
Attorney Docket No. SJO000031US1

METHOD, SYSTEM, AND PROGRAM FOR ELECTRONICALLY MAINTAINING
MEDICAL INFORMATION BETWEEN PATIENTS AND PHYSICIANS

Submitted by:

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I. Real Party in Interest

The entire right, title and interest in this patent application is assigned to real party in interest International Business Machines Corporation.

II. Related Appeals, Interferences, and Judicial Proceedings

Appellant, Appellant's legal representative, and Assignee are not aware of any other prior or pending appeals, interferences, and judicial proceedings which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

III. Status of the Claims

Claims 1, 3-17, 19-31, and 33-36 are pending and have been rejected.

The final rejection of the claims is being appealed for all pending claims 1, 3-17, 19-31, and 33-36.

IV. Status of Amendments

No amendment was filed after receipt of a Final Rejection.

V. Summary of the Invention

The presently claimed invention is directed to generating one electronic patient data structure consisting of patient identification information, patient biographical information, medical history information including medical event information, medication schedule information, appointment schedule information, and log information. The one electronic patient

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data structure is electronically transmitted between a physician computer and a portable patient device, wherein the patient data structure is capable of being modified. In the display of the portable computing device, a main menu of selectable views is displayed. The selectable views consist of a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view. The appointment schedule view displayed in the display of the portable computing device differs from the appointment schedule view that is displayable on a display at the physician computer. Direct selection of one of the selectable views results in that selected view being displayed independently of the other selectable views.

For example, as described in the specification in connection with one embodiment, a patient portable personal digital assistant (PDA) is capable of communication with a patient computer and with a physician computer (e.g., Applicants' Specification, page 4, lines 25-27). An electronic patient data structure for a patient record is generated and consists of patient identification information, patient biographical information, medical history information including medical event information, medication schedule information, appointment schedule information, and log information (e.g., Applicants' Specification page 5, line 22 - page 7, line 20; FIGs. 2-3). The patient data structure is electronically transmitted between the physician computer and a portable patient device (e.g., Applicants' Specification, page 5, lines 7-20; page 12, line 28 - page 13, line 1). The patient data structure is capable of being modified (e.g., Applicants' Specification page 7, lines 8-9; page 9, lines 23-26). A main menu of selectable views are displayed in the display of the portable computing device (e.g., Applicants' Specification, page 8, line 3 - page 9, line 12; FIG. 3). The selectable views consist of a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule

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view, and a log view (e.g., Applicants' Specification, page 8, line 3 - page 9, line 12; FIG. 3). The appointment schedule view displayed in the display of the portable computing device differs from the appointment schedule view that is displayable on a display at the physician computer (e.g., Applicants' Specification, page 9, lines 6-8 and lines 18-20; page 12, lines 5-14). Direct selection of one of the selectable views results in that selected view being displayed independently of the other selectable views (e.g., Applicants' Specification, page 8, line 3- page 9, line 12; FIG. 3).

In another aspect of the invention, it is indicated, with the portable patient device, that one scheduled patient medication shown in the patient medication schedule view was taken (e.g., Applicants' Specification, page 6, lines 15-17), wherein the medication schedule view provides a calendar display of a medication schedule derived from prescription subrecords in a patient record (e.g., Applicants' Specification, page 6, lines 10-17; page 8, line 25 - page 9, line 5). Then, the indication that the patient took the scheduled patient medication is stored in the patient data structure in the portable computing device (e.g., Applicants' Specification, page 3, lines 12-17 and lines 21-24; page 6, lines 15-17).

In yet another aspect of the invention, an alarm is set to activate to provide an alert of one scheduled patient medication or appointment, wherein the alarm is set by a patient for whom the alert is scheduled and who is using the patient portable device (e.g., Applicants' Specification, page 6, lines 17-23).

In a further aspect of the invention, log information indicating modifications to information in the patient data structure is generated, wherein the log information is read-only and once generated cannot be altered (e.g., Applicants' Specification, page 7, lines 4-20).

In another aspect of the invention, with the physician computer, one of appointment and

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medication events is added to the patient data structure, wherein one appointment event indicates a scheduled medical related visit and one medication event indicates a drug prescription, wherein the drug prescription is digitally signed with a physician public key so that a pharmacist may authenticate an electronic prescription (e.g., Applicants' Specification, page 3, lines 3-4; page 12, lines 10-20). The modified patient data structure is transmitted to the patient device (e.g., Applicants' Specification, page 3, lines 5-6; page 12, lines 21-23).

In yet another aspect of the invention, in the display of the patient device, in the patient medication schedule view and in the appointment schedule view the added one of appointment and medication events stored in the patient data structure that were added to the patient data structure to allow the patient to review scheduled medication and appointments is displayed (e.g., Applicants' Specification, page 8, lines 3-12 and lines 18-28 to page 9, line 12; page 12, lines 21-23; FIG. 3).

In a further aspect of the invention, with the physician computer, patient data structures for multiple patients are stored (e.g., Applicants' Specification, page 5, lines 20-21; page 7, lines 22-24). At the physician computer, an interactive schedule of patient appointments from the appointment schedule view maintained in the patient data structures is displayed, wherein appointment events are added to one patient data structure through the displayed interactive schedule of patient appointments, and wherein the displayed interactive schedule of patient appointments displays scheduled appointments for all patient records (e.g., Applicants' Specification, page 12, lines 9-14).

In another aspect of the invention, the patient data structure further includes patient insurance billing information that can be used to generate insurance claims for patient services (e.g. Applicants' Specification, page 6, lines 1-3; page 13, lines 2-3).

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In yet another aspect of the invention, an additional computer is used to modify information in the patient data structure and transmit the modified patient data structure to the portable patient device (e.g., Applicants' Specification, page 15, lines 15-16).

In a further aspect of the invention, a medical information system maintains electronic patient medical information (e.g., Applicants' Specification, page 5, line 22 - page 7, line 20; FIG. 2) for use in a physician computer (e.g., Applicants' Specification, page 4, line 24 - 28; FIG. 1) and a portable patient device (e.g., Applicants' Specification, page 4, line 24 - page 5, line 6; FIG. 1). The physician computer comprises a computer readable medium (e.g., Applicants' Specification, page 15, lines 2-13; FIG. 1) including one electronic patient data structure consisting of patient identification information, patient biographical information, medical history information including medical event information, medication schedule information, appointment schedule information, and log information (e.g., Applicants' Specification, page 5, line 22 - page 7, line 20; FIGs. 1-3). The physician computer also comprises at least one communication port capable of transmitting the patient data structure to the portable patient device and receiving the patient data structure from the portable patient device (e.g., Applicants' Specification, page 5, lines 7-12; FIG. 1). The physician computer comprises displaying, in the display of the portable computing device, a main menu of selectable views, wherein the selectable views consist of a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view (e.g., Applicants' Specification, page 8, line 3 - page 9, line 12; FIGs. 1 and 3), and wherein the appointment schedule view displayed in the display of the portable computing device differs from the appointment schedule view that is displayable on a display at the physician computer (e.g., Applicants' Specification, page 9, lines 6-8, and lines 18-20; page 12, lines 5-14; FIG. 1),

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and wherein direct selection of one of the selectable views results in that selected view being displayed independently of the other selectable views (e.g., Applicants' Specification, page 8, line 3 - page 9, line 12; FIG. 3). The physician computer comprises means for modifying information (e.g., Applicants' Specification, page 7, lines 8-9; page 9, lines 23-26; FIG. 1) in the patient data structure via at least one of the patient bio view, the medical history view, the patient medication schedule view, and the appointment schedule view, wherein the modified patient data structure is capable of being transmitted to the portable patient device via the communication port (e.g., Applicants' Specification, page 5, lines 7-20; page 12, lines 5-23; FIG. 1).

In another aspect of the invention, the physician computer comprises means for displaying the patient medication schedule view and the appointment schedule view stored in the patient data structure to allow the physician to review scheduled medication and appointments (e.g., Applicants' Specification, page 9, lines 14-16; FIG. 1).

In yet another aspect of the invention , the physician computer comprises means for generating log information indicating modifications to information in the patient data structure, wherein the log information is read-only and once generated cannot be altered (e.g., Applicants' Specification, page 7, lines 4-20; FIG. 1).

In a further aspect of the invention, the physician computer comprises means for adding one of appointment and medication events to the patient data structure, wherein one appointment event indicates a scheduled medical related visit and one medication event indicates a drug prescription, wherein the drug prescription is digitally signed (e.g., Applicants' Specification, page 3, lines 3-4; page 12, lines 10-20; FIG. 1) and transmitting, via the communication port, the modified patient data structure to the portable patient device (e.g., Applicants' Specification,

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page 3, lines 5-6; page 12, lines 21-23; FIG. 1).

In another aspect of the invention, the physician computer comprises means for storing patient data structures for multiple patients (e.g., Applicants' Specification, page 5, lines 20-21; page 7, lines 22-24; FIG. 1) and means for displaying an interactive schedule of patient appointments from appointment schedule information maintained in the patient data structures, wherein appointment events are added to one patient data structure through the displayed interactive schedule of patient appointments, and wherein the displayed interactive schedule of patient appointments displays scheduled appointments for all patient records (e.g., Applicants' Specification, page 12, lines 9-14; FIG. 1).

In yet another aspect of the invention, the patient data structure further includes patient insurance billing information that the physician computer uses to generate insurance claims for patient services (e.g., Applicants' Specification, page 6, lines 1-3; page 13, lines 2-3; FIG. 1).

In a further aspect of the invention, a medical information system maintains electronic patient medical information (e.g., Applicants' Specification, page 5, line 22 - page 7, line 20; FIG. 2) for use in a physician computer and a portable patient device (e.g., Applicants' Specification, page 4, lines 24- page 5, line 6; FIG. 1. The patient device includes a computer readable medium (e.g., Applicants' Specification, page 15, lines 2-13; FIG. 1) including one electronic patient data structure consisting of patient identification information, patient biographical information, medical history information including medical event information, medication schedule information, appointment schedule information, and log information (e.g., Applicants' Specification, page 5, line 22- page 7, line 20; FIGs. 1-3). The patient device includes at least one communication port capable for transmitting the patient data structure to the physician computer and receiving the patient data structure from the physician computer

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(e.g., Applicants' Specification, page 5, lines 7-12; FIG. 1), wherein the patient data structure is capable of being modified (e.g., Applicants' Specification, page 7, lines 8-9; page 9, lines 23-26; FIG. 1). The patient device includes displaying, in the display of the portable computing device, a main menu of selectable views, wherein the selectable views consist of a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view (e.g., Applicants' Specification, page 8, line 3 - page 9, line 12; FIGs. 1 and 3), and wherein the appointment schedule view displayed in the display of the portable computing device differs from the appointment schedule view that is displayable on a display at the physician computer (e.g., Applicants' Specification, page 9, lines 6-8, and lines 18-20; page 12, lines 5-14; FIG. 1), and wherein direct selection of one of the selectable views results in that selected view being displayed independently of the other selectable views (e.g., Applicants' Specification, page 8, line 3 - page 9, line 12; FIG. 3).

In another aspect of the invention, the portable patient device comprises means for indicating that one scheduled patient medication was taken (e.g., Applicants' Specification, page 6, lines 15-17; FIGs. 1-2), wherein the medication schedule view provides a calendar display of a medication schedule derived from prescription subrecords in a patient record (e.g., Applicants' Specification, page 6, lines 10-17; page 8, line 25 - page 9, line 5), and means for storing the indication in the patient data structure that the patient took the scheduled medication (e.g., Applicants' Specification, page 3, lines 12-17 and lines 21-24; page 6, lines 15-17; FIGs. 1-2).

In yet another aspect of the invention, the portable patient device comprises means for setting an alarm to activate to provide an alert of one scheduled patient medication or appointment, wherein the alarm is set by a patient for whom the alert is scheduled and who is using the patient portable device (e.g., Applicants' Specification, page 6, lines 17-23; FIG. 1).

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In a further aspect of the invention, the portable patient device further comprises means for generating log information indicating modifications to information in the patient data structure, wherein the log information is read-only and once generated cannot be altered (e.g., Applicants' Specification, page 7, lines 4-20).

In another aspect of the invention, the patient data structure includes patient insurance billing information that can be used to generate insurance claims for patient services (e.g., Applicants' Specification, page 6, lines 1-3; page 13, lines 2-3).

In yet another aspect of the invention, an additional computer includes means for transmitting the electronic patient medical information between the additional computer and the portable patient device, wherein the additional computer is capable of modifying information in the patient data structure via at least one of the patient bio view, the medical history view, the patient medication schedule view, and the appointment schedule view and transmitting the modified patient data structure to the portable patient device (e.g., Applicants' Specification, page 15, lines 15-16).

In a further aspect of the invention, the portable patient device comprises one of a smart card, palm computing device, hand-held computing device, and laptop computer (e.g., Applicants' Specification, page 5, lines 1-6; page 10, lines 21-22; page 15, lines 16-26).

In another aspect of the invention, an article of manufacture is embodied on a computer-readable medium (e.g., Applicants' Specification, page 15, lines 2-13; FIG. 1) for use in a medical information system to maintain electronic patient medical information (e.g., Applicants' Specification, page 5, line 22- page 7, line 20; FIG. 2) for use in a physician computer (e.g., Applicants' Specification, page 4, lines 24-28; FIG. 1) and a portable patient device (e.g., Applicants' Specification, pag 4, lines 24 - page 5, line 6; FIG. 1). The article of manufacture

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comprises at least one computer program (e.g., Applicants' Specification, page 5, lines 15-16). One electronic patient data structure consisting of patient identification information, patient biographical information, medical history information including medical event information, medication schedule information, appointment schedule information, and log information is read (e.g., Applicants' Specification, page 5, line 22 - page 7, line 20; FIGs. 1-3). The patient data structure is transmitted to the portable patient device (e.g., Applicants' Specification, page 5, lines 7-20; page 12, line 28 - page 13, line 1). The patient data structure is received from the portable patient device (e.g., Applicants' Specification, page 5, lines 7-20). In the display of the portable computing device, a main menu of selectable views is displayed, wherein the selectable views consist of a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view (e.g., Applicants' Specification, page 8, line 3 - page 9, line 12; FIGs. 1 and 3), and wherein the appointment schedule view displayed in the display of the portable computing device differs from the appointment schedule view that is displayable on a display at the physician computer (e.g., Applicants' Specification, page 9, lines 6-8 and lines 18-20; page 12, lines 5-14; FIG. 1), and wherein direct selection of one of the selectable views results in that selected view being displayed independently of the other selectable views (e.g., Applicants' Specification, page 8, line 3 - page 9, line 12; FIG. 3). Information in the patient data structure is modified via at least one of the patient bio view, the medical history view, the patient medication schedule view, and the appointment schedule view (e.g., Applicants' Specification, page 7, lines 8-9; page 9, lines 23-26; FIG. 3), wherein the modified patient data structure is capable of being transmitted to the portable patient device via the communication port (e.g., Applicants' Specification, page 5, lines 7-12; FIG. 1).

In yet another aspect of the invention, an article of manufacture causes a the physician

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computer to perform displaying views of the patient medication and appointment schedule information stored in the patient data structure to allow the physician to review scheduled medication and appointments (e.g., Applicants' Specification, page 9, lines 14-16; FIG. 1).

In a further aspect of the invention, an article of manufacture causes a physician computer to perform generating log information indicating modifications to information in the patient data structure, wherein the log information is read-only and once generated cannot be altered (e.g., Applicants' Specification, page 7, lines 4-20; FIG. 1).

In another aspect of the invention, an article of manufacture causes a physician computer to perform adding one of appointment and medication events to the patient data structure, wherein one appointment event indicates a scheduled medical related visit and one medication event indicates a drug prescription, wherein the drug prescription is digitally signed (e.g., Applicants' Specification, page 3, lines 3-4; page 12, lines 10-20; FIG. 1) and transmitting the modified patient data structure to the portable patient device (e.g., Applicants' Specification, page 3, lines 5-6; page 12, lines 21-23; FIG. 1).

In yet another aspect of the invention, an article of manufacture, causes a physician computer to perform storing patient data structures for multiple patients (e.g., Applicants' Specification, page 5, lines 20-21; page 7, lines 22-24; FIG. 1) and displaying an interactive schedule of patient appointments from appointment schedule information maintained in the patient data structures, wherein appointment events are added to one patient data structure through the displayed interactive schedule of patient appointments, and wherein the displayed interactive schedule of patient appointments displays scheduled appointments for all patient records (e.g., Applicants' Specification, page 12, lines 9-14; FIG. 1).

In a further aspect of the invention, a patient data structure includes patient insurance

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billing information, wherein an article of manufacture causes a physician computer to perform

accessing the insurance billing information from the patient data structure to use in billing

medical services to the patient's insurance company article of manufacture.

In another aspect of the invention, an article of manufacture is embodied on a computer-

readable medium (e.g., Applicants' Specification, page 15, lines 2-13; FIG. 1) for use in a

medical information system to maintain electronic patient medical information (e.g., Applicants'

Specification, page 5, line 22- page 7, line 20; FIG. 2) for use in a physician computer (e.g.,

Applicants' Specification, page 4, lines 24-28; FIG. 1) and a portable patient device (e.g.,

Applicants' Specification, pag 4, lines 24 - page 5, line 6; FIG. 1). The, article of manufacture

comprises at least one computer program (e.g., Applicants' Specification, page 5, lines 15-16).

One electronic patient data structure is stored that includes patient biographical information and

one of medical history information including medical event information, medication schedule

information, and appointment schedule information (e.g., Applicants' Specification, page 5, line

22 - page 7, line 20; FIGs. 1-3). The patient data structure is transmitted to the physician

computer. (e.g., Applicants' Specification, page 5, lines 7-20; page 12, line 28 - page 13, line 1).

The patient data structure is received from the physician computer (e.g., Applicants'

Specification, page 5, lines 7-20), wherein the patient data structure is capable of being modified

(e.g., Applicants' Specification page 7, lines 8-9; page 9, lines 23-26). In the display of the

portable computing device, a main menu of selectable views is displayed, wherein the selectable

views comprise a patient bio view, a medical history view, a patient medication schedule view,

an appointment schedule view, and a log view (e.g., Applicants' Specification, page 8, line 3 -

page 9, line 12; FIG. 3), and wherein the appointment schedule view displayed in the display of

the portable computing device differs from the appointment schedule view that is displayable on

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a display at the physician computer (e.g., Applicants' Specification, page 9, lines 6-8 and lines 18-20; page 12, lines 5-14).

In another aspect of the invention an article of manufacture causes the patient device to perform indicating that one scheduled patient medication was taken, wherein the medication schedule view provides a calendar display of a medication schedule derived from prescription subrecords in a patient record (e.g., Applicants' Specification, page 6, lines 10-17; page 8, line 25 - page 9, line 5) and storing the indication in the patient data structure that the patient took the scheduled medication (e.g., Applicants' Specification, page 3, lines 12-17 and lines 21-24; page 6, lines 15-17).

In a further aspect of the invention, an article of manufacture comprises setting an alarm to activate to provide an alert of one scheduled patient medication or appointment, wherein the alarm is set by a patient for whom the alert is scheduled and who is using the patient portable device (e.g., Applicants' Specification, page 6, lines 17-23).

In another aspect of the invention, an article of manufacture causes the patient device to perform generating log information indicating modifications to information in the patient data structure, wherein the log information is read-only and once generated cannot be altered at the physician computer or by the patient device (e.g., Applicants' Specification, page 7, lines 4-20).

In yet another aspect of the invention, an article of manufacture causes a patient device to perform transmitting the electronic patient medical information to an additional computer, wherein the additional computer is capable of modifying information in the patient data structure via at least one of the patient bio view, the medical history view, the patient medication schedule view, and the appointment schedule view and transmitting the modified patient data structure to the portable device (e.g., Applicants' Specification, page 15, lines 15-16).

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VI.   Grounds of Rejection

A concise statement listing each ground of rejection presented for review is as follows:

A.   Ground of Rejection 1: The Obviousness Rejection Based on the Lavin and Brown
Combination

Claims 1, 3-17, 19-31, and 33-36 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lavin et al. (U.S. Patent No. 5,772,585) in view of Brown (U.S. Patent No. 6,032,119).

VII.   Argument

A.   Ground of Rejection 1: The Obviousness Rejection Based on the Lavin and Brown
Combination

1.   Claims 1, 9-12, 16-17, 22-26, 30-31, and 36 are not Obvious over the Lavin and
Brown Combination

As set forth above, claims 1, 11, 17, 25, and 31 are directed to a method, system, and article of manufacture for generating one electronic patient data structure consisting of patient identification information, patient biographical information, medical history information including medical event information, medication schedule information, appointment schedule information, and log information. The one electronic patient data structure is electronically transmitted between a physician computer and a portable patient device, wherein the patient data structure is capable of being modified. In the display of the portable computing device, a main menu of selectable views is displayed. The selectable views consist of a patient bio view, a

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medical history view, a patient medication schedule view, an appointment schedule view, and a log view. The appointment schedule view displayed in the display of the portable computing device differs from the appointment schedule view that is displayable on a display at the physician computer. Direct selection of one of the selectable views results in that selected view being displayed independently of the other selectable views.

The Office Action mailed on October 18, 2004 (hereinafter "October Office Action") indicates that the claims are rejected under the same reasons given in the prior Office Action, mailed on April 20, 2004 (hereinafter "April Office Action").

Even if combined, the Lavin patent and the Brown patent do not teach or suggest the subject matter of claims 1, 11, 17, 25, and 31. For example, the Lavin patent describes a main menu with an appointment button, a patient information button, a clinical button, a reports button, and a utilities button, while the Brown patent describes display of a body image section, a log book section, a blood glucose center section, a feedback section, and a mail center section. Even if combined, the result of combining the Lavin and Brown patents would be a main menu with *an appointment button, a patient information button, a clinical button, a reports button, a utilities button, a body image section, a log book section, a blood glucose center section, a feedback section, and a mail center section*. On the other hand, Applicants' claimed main menu allows selection of <u>a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view, wherein direct selection of one of the selectable views results in that selected view being displayed independently of the other selectable views</u>. Also, the combination of the Lavin and Brown patents results in multiple data structures used to store patient information, which teaches away from the claimed one electronic data structure.

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In particular, the Lavin patent describes a main menu with an appointment button, a patient information button, a clinical button, a reports button, and a utilities button (Col. 5, lines 47-50; FIG. 2). The Lavin patent does not teach or suggest the claimed display of a main menu allowing selection of a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view, wherein direct selection of one of the selectable views results in that selected view being displayed independently of the other selectable views. For example, in the Lavin patent, to access history information, selection of a patient information button is selected (FIG. 2), and then a view with a history tab is provided (FIG. 11). The provided view in FIG. 11 includes tabs for other information, such as the patient tab. On the other hand, with the claimed invention, medical history is accessed directly by selecting the medical history view available from the main menu and is displayed independently of other selectable views (e.g., in FIG. 3, selection of the medical history view displays view 44 independently of the patient bio view 42). Thus, the Lavin patent teaches away from the subject matter of claims 1, 11, 17, 25, and 31.

Also, the cited portion of the Lavin patent (at Col. 6, lines 8-67; Col. 7, lines 12-67 - Col. 8, line 67; Col. 14, lines 48-67 to Col. 15, line 46) describes an appointment screen in FIG. 4, a patient selection screen in FIG. 5, an appointment scheduling routine in FIG. 6, patient screens in FIGs. 7-9, screens for entering patient medical background information in FIGs. 10-11, a vital statistic entry screen in FIG. 12, and relationships among tables/screens in FIGs. 22, 23, and 24. Again, this description does not teach or suggest display of a main menu allowing selection of a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view.

In the October Office Action, in response to Applicants' arguments that the Lavin patent

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does not teach or suggest the claimed display of a main menu allowing selection of a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view, wherein direct selection of one of the selectable views results in that selected view being displayed independently of the other selectable views, the Examiner cites the Brown patent. In the April Office Action, the Examiner submits that the Brown patent's description of the body image (FIG. 4-B), the blood glucose center (FIG. 4-C), log book (FIG. 4-D), mail center (FIG. 4-E), Health Avatar (FIG. 5-A), and log book functions (FIG. 5-B) teaches the claimed invention. Applicants' traverse. In the Brown patent, FIGs. 5A - 5G are schematic depictions of screen shots. (Col. 6, lines 19-21) The Brown patent describes that the display comprises several sections: a body image section, a log book section, a blood glucose center section, a feedback section, and a mail center section. (Col. 6, lines 46-51)

For example, the claimed invention allows a user to access an appointment schedule view from the main menu. On the other hand, the Brown patent requires selection of a log book from the Health Avatar and then selection of an appointment schedule view (FIG. 5B). This teaches away from Applicants' claimed invention. In the October Office Action, in response to this argument, the Examiner cites the Brown patent as describing a log book (FIG. 4-D) that allows a patient to access and modify records of medication, symptoms/events, lab tests, treatment plans, diets, and appointment and checkup schedules (Col. 6, lines 37-41). In Applicants' Specification, software programs that are capable of modifying a patient record include the capability to automatically write an entry to the log record whenever information in the patient record is modified (e.g., page 7, lines 8-11). Thus, the log information includes information about changes to the patient data structure. The claimed log information does not allow a patient to access and modify records. Therefore, the Brown patent does not teach or suggest the claimed

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log information. Also, the Examiner, in the October Office Action, cites the Brown patent as disclosing a Feedback section 106 (FIG. 5A) that enables a patient to record information about his or her health habits. There is no indication that recording information also causes an entry to be made to the log information. Whereas, with Applicants' invention, when the patient data structure is modified, an entry is made to the log information (e.g., Applicants' Specification, page 7, lines 8-11).

Also, with the Brown patent, to obtain historical information on a body part, that body part is selected (FIG. 5F), and then a history button is selected (FIG. 5F). With the claimed invention, medical history is accessed directly by selecting the medical history view available from the main menu.

Moreover, the log book of the Brown patent does not teach or suggest the claimed log view for a log that stores storing additions, deletions or modifications to any field or sub-record of patient information (e.g., Specification, pag 7, lines 4-20) in the patient data structure. Thus, the Brown patent does not teach or suggest the claimed display of a main menu of selectable views, wherein the selectable views comprise a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view. Instead, the Brown patent teaches away from the subject matter of claims 1, 11, 17, 25, and 31.

The April Office Action cites Col. 6, lines 58-67-Col. 7, lines 13-67 as describing generating one electronic patient data structure consisting of patient identification information, patient biographical information, medical history information including medical event information, medication schedule information, appointment schedule information, and log information. The cited portion of the Lavin patent describes FIGs. 6-10, which further describe various screens, such as a physician scheduling screen (FIG. 6). Different screens are associated

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with different patient data structures, for example, the patient information associated with data entry screens of FIGs. 7-9 are associated with the Patient Information table, while the screens for entering patient medical background information are associated with other database tables. Thus, the Lavin patent uses multiple patient data structures to store patient data. By the use of various data structures (i.e., different tables) to store data, the Lavin patent teaches away from generating one electronic patient data structure as claimed.

In the October Office Action, in response to Applicants' arguments that the Lavin patent teaches away from generating one electronic patient data structure, the Examiner cites the Brown patent at Col. 6, lines 13-15. The Brown patent describes an HTML page illustrating a patient's personalized health model on a patient's computer (Col. 6, lines 13-15). An HTML page is not a data structure and does not teach or suggest a data structure. A data structure may be defined as a specialized format for organizing and storing data, such as a record (www.whatis.com). Applicants' Specification describes the patient data structure as a patient record in a patient database (e.g., page 5, lines 23-24). On the other hand, Hypertext Markup Language (HTML) is a set of markup symbols or codes inserted in a file intended for display on a World Wide Web browser page (www.whatis.com). An HTML page is a page created with Hypertext Markup Language. Also, "claims must be read in the context of the specification of which they are a part." 72 USPQ2d 1769 (CA FC 2004)

Additionally, the Examiner interprets a patient's file as a form of log information (April Office Action, Col. 9, lines 1-18). "Claims must be read in the context of the specification of which they are a part." 72 USPQ2d 1769 (CA FC 2004) Applicants' Specification defines a log as storing additions, deletions or modifications to any field or sub-record of patient information (e.g., Applicants' Specification, pag 7, lines 4-20). In Applicants' Specification, software

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programs that are capable of modifying a patient record include the capability to automatically write an entry to the log record whenever information in the patient record is modified (e.g., page 7, lines 8-11). When the claims are read in the context of the Specification, it is clear that log information is not equivalent to a patient's file.

In the October Office Action, in response to Applicants' arguments that a log is defined as storing additions, deletions or modifications of a field or sub-field of patient information, the Examiner cites the Brown patent as describing a log book (FIG. 4-D) that allows a patient to access and modify records of medication, symptoms/events, lab tests, treatment plans, diets, and appointment and checkup schedules (Col. 6, lines 37-41). In Applicants' Specification, software programs that are capable of modifying a patient record include the capability to automatically write an entry to the log record whenever information in the patient record is modified (e.g., page 7, lines 8-11). The claimed log information does not allow a patient to access and modify a patient data structure, but records changes that are made to the patient data structure. Therefore, the Brown patent does not teach or suggest the claimed log information. Also, the Examiner, in the October Office Action, cites the Brown patent as disclosing a Feedback section 106 (FIG. 5A) that enables a patient to record information about his or her health habits. There is no indication that recording information also causes an entry to be made to log information. Whereas, with Applicants' invention, when the patient data structure is modified, an entry is made to the log information (e.g., Applicants' Specification, page 7, lines 8-11).

In the October Office Action, the Examiner submits that Applicants provide a piecemeal analysis of the teachings of the Lavin and Brown references, separately. Applicants traverse. Applicants have shown that the combination of the Lavin and Brown patents does not teach or suggest Applicants' claimed invention in prior responses, as well as herein. Applicants have also

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discussed each patent individually to respond to the Examiner's particular rejections citing only one or the other patent.

Thus, claims 1, 11, 17, 25, and 31 are not taught or suggested by the Lavin or Brown patents, either alone or in combination.

Dependent claims 9-10, 12, 16, 22-24, 26, 30, and 36 incorporate the language of independent claims 1, 11, 17, 25, and 31, respectively, and add additional novel elements. Therefore, dependent claims 9-10, 12, 16, 22-24, 26, 30, and 36 are not taught or suggested by the Lavin or Brown patents, either alone or in combination, for at least the same reasons as were discussed with respect to independent claims 1, 11, 17, or 31.

Accordingly, it is respectfully submitted that the rejection of claims 1, 9-12, 16-17, 22-26, 30-31, and 36 as obvious over the Lavin and Brown combination should be reversed.

2.   Claims 3, 19, and 33 are not Obvious over the Lavin and Brown Combination

Claims 3, 19, and 33 describe indicating, with the portable patient device, that one scheduled patient medication shown in the patient medication schedule view was taken, wherein the medication schedule view provides a calendar display of a medication schedule derived from prescription subrecords in a patient record and storing the indication that the patient took the scheduled patient medication in the patient data structure in the portable computing device. The April Office Action cites the Lavin patent at Col. 6, lines 58-67 - Col. 8, lines 39-67 as describing these elements. The cited portion of the Lavin patent describes a physician scheduling screen that provides a user with the ability to view and alter physician availability (Col. 6, lines 60-62; FIG. 6) and patient information screens (FIGs. 7-11). Viewing physician

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availability is not equivalent to the claimed viewing of a calendar display of a medication schedule and storing an indication that a scheduled patient medication was taken.

In the October Office Action, in response to the arguments that viewing physician availability is not equivalent to the claimed viewing of a calendar display of a medication schedule and storing an indication that a scheduled patient medication was taken, the Examiner submits that the Brown patent describes a smart card. The smart card contains an encrypted patient code, a prescribed treatment for the patient, and a URL address of the processing means (Col. 4, lines 20-28). Examples of inputs include a prescribed treatment for a patient (Col. 4, line 35), and examples of data specified by the inputs include blood glucose level histories, generally acceptable blood glucose levels, dates of doctor examinations, etc. (Col. 4, lines 43-47). There is no teaching or suggestion that the smart card provides an indication that one scheduled patient medication shown in the patient medication schedule view was taken. Also, there is no teaching or suggestion in the Brown patent that the smart card provides a calendar display of a medication schedule derived from prescription subrecords in a patient record or that the indication that the patient took the scheduled patient medication is stored in a patient data structure in the portable computing device.

Because neither the Lavin nor the Brown patent teach or suggest the claimed subject matter, the combination of the Lavin and Brown patents does not teach or suggest the subject matter of claims 3, 19, and 33.

Accordingly, it is respectfully submitted that the rejection of claims 3, 19, and 33 as obvious over the Lavin and Brown combination should be reversed.

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3.   Claims 4, 20, and 34 are not Obvious over the Lavin and Brown Combination

Claims 4, 20, and 34 describe setting an alarm to activate to provide an alert of one scheduled patient medication or appointment, wherein the alarm is set by a patient for whom the alert is scheduled and who is using the patient portable device. The Examiner appears to indicate that the allergy alert screen is equivalent to setting an alarm to provide an alert of a scheduled patient medication or appointment. Applicants traverse. The Lavin patent describes at Col. 14, lines 1-2 an allergy alert screen. An allergy alert screen that alerts the physician of potential or known allergies (Col. 13, lines 65-67- Col. 14, line 1) does not teach or suggest an alarm set by a patient to provide an alert for taking scheduled medication or for an appointment. Also, the April Office Action cites Col. 10, lines 12-67 of the Lavin patent as describing that the alarm is set by a patient for whom the alert is scheduled and who is using the patient portable device. The Lavin patent states that the physician may review allergies and that the information is entered by the health care professional or nurse during the patient's initial consultation with the nurse (Col. 9, lines 61-Col. 10, line 3). This teaches away from the claimed setting of the alarm by the patient for whom the alert is scheduled and who is using the patient device.

In the October Office Action, in response to the argument that the Lavin patent teaches away from the claimed setting of the alarm by the patient for whom the alert is scheduled and who is using the patient device, the Examiner cites the Brown patent at Col. 6, lines 30-45. The cited portion of the Brown patent does not mention an alert. Therefore, the Brown patent also does not teach or suggest setting an alarm to activate to provide an alert of one scheduled patient medication or appointment, wherein the alarm is set by a patient for whom the alert is scheduled and who is using the patient portable device.

Because neither the Lavin nor the Brown patent teach or suggest the claimed subject

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matter, the combination of the Lavin and Brown patents does not teach or suggest the subject matter of claims 4, 20, and 34.

Accordingly, it is respectfully submitted that the rejection of claims 4, 20, and 34 as obvious over the Lavin and Brown combination should be reversed.

4.   Claims 5, 13, 21, 27, and 35 are not Obvious over the Lavin and Brown
       Combination

Claims 5, 13, 21, 27, and 35 describe generating log information indicating modifications to information in the patient data structure and that the log information is read-only and once generated cannot be altered. The April Office Action indicates that the patient's file is a form of log information. First, Applicants' submit that a patient file is not equivalent to the claimed log information. Second, if the patient's file is a form of log information, since the Lavin patent describes the patient file as being altered, the patient file is not read-only, and the Lavin patent teaches away from the claimed subject matter.

Also, the April Office Action cites Col. 10, lines 50-67 of the Lavin patent as describing that the log information is read-only. The cited portion of the Lavin patent describes display-only screens and recording of progress notes, neither of which are equivalent to read-only log information. For example, the display-only screens provide patient information, rather than log information, which is described as modifications to information in the patient data structure. Also, physician notes are not equivalent to log information (i.e., modifications to information in the patient data structure). Since the physician is recording notes, it would be expected that the physician may modify the notes (e.g., to correct typos), which would teach away from log

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information that is read-only and once generated cannot be altered.

In the October Office Action, in response to Applicants' arguments that the Lavin patent does not teach log information that is read-only and once generated cannot be altered, the Examiner cites Col. 5, lines 36-56 of the Lavin patent. The cited portion of the Lavin patent describes that medical practitioners and staff require access to various types of information and describes a main menu display. The Lavin patent does not teach or suggest generating log information indicating modifications to the various types of information. Thus, there is no teaching or suggestion in the Lavin patent that log information is read-only and once generated cannot be altered.

Accordingly, it is respectfully submitted that the rejection of claims 5, 13, 21, 27, and 35 as obvious over the Lavin and Brown combination should be reversed.

5.   Claims 6, 7, 14, and 28 are not Obvious over the Lavin and Brown Combination

Claims 6, 14, and 28 describe adding, with the physician computer, one of appointment and medication events to the patient data structure, wherein one appointment event indicates a scheduled medical related visit and one medication event indicates a drug prescription, wherein the drug prescription is digitally signed. Additionally, claim 6 indicates that the drug prescription is digitally signed with a physician public key so that a pharmacist may authenticate an electronic prescription and transmitting the modified patient data structure to the patient device. Applicants' Specification describes that "digitally sign" is equivalent to "encrypt a prescription with a physician public key (e.g., page 12, line 18). The April Office Action cites Col. 13, lines 60-67 and Col. 14 line 67 - Col. 15, line 42 as describing adding the events and

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wherein the drug prescription is digitally signed with a physician public key. The Lavin patent describes a digitized physician signature (Col. 14, lines 18-21), but the claimed digital signature, read in the context of the Specification, is one that encrypts a prescription with a physician public key. The Lavin patent does not describe a physician public key. Also, the physician either prints out or faxes the prescription, which teaches away from use of a drug prescription that is digitally signed so that a pharmacist may authenticate an electronic prescription. With a print out or fax, a physician in the Lavin patent does not receive a claimed electronic prescription and, therefore, could not authenticate the claimed electronic prescription.

In the October Office Action, the Examiner states:

"With respect to Applicant's eleventh argument regarding a physician public key,

Examiner looked everywhere in the claims for such a feature but couldn't find it."

Applicants respectfully submit that claim 6 recites "wherein the drug prescription is digitally signed with a physician public key", and this language was added in an Amendment filed by Applicants on March 6, 2003.

Claim 7 depends from claim 6 and is not taught or suggested by the Lavin or Brown patents, either alone or in combination, for at least the same reasons as were discussed with respect to claim 6.

Accordingly, it is respectfully submitted that the rejection of claims 6, 7, 14, and 28 as obvious over the Lavin and Brown combination should be reversed.

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6.   Claims 8, 15, 9, and 29 are not Obvious over the Lavin and Brown Combination

Claims 8, 15, 19, and 29 describe storing, with the physician computer, patient data structures for multiple patients; displaying, at the physician computer, an interactive schedule of patient appointments from the appointment schedule view maintained in the patient data structures, wherein appointment events are added to one patient data structure through the displayed interactive schedule of patient appointments, and wherein the displayed interactive schedule of patient appointments displays scheduled appointments for all patient records.

The Lavin patent at cited Col. 6, lines 7-67 describes retrieving a patient's name, along with information associated with that patient; describes an appointment screen to view appointment slots by physician or location; a patient selection screen for access to that patient's information; and, a physician scheduling screen. That is, the Lavin patent provides access to a single patient's information at a time or to schedules of physicians. The Lavin patent does not provide an interactive schedule of patient appointments from the appointment schedule view maintained in the patient data structures, wherein appointment events are added to one patient data structure through the displayed interactive schedule of patient appointments, and wherein the displayed interactive schedule of patient appointments displays scheduled appointments for all patient records. Additionally, the Brown patent describes access to an individual's data via a Health Avatar (TM) (FIG. 5-A).

In the October Office Action, in response to Applicants' arguments, the Examiner cites the Lavin patent as teaching that the data in the database can allow the user to access and analyze patient data in a variety of ways, such as by tracking the effectiveness of treatments or patterns of disease. However, there is no teaching or suggestion in the Lavin patent of displaying an

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interactive schedule of patient appointments. Because both the Lavin and Brown patents provide access to a single patient's information at a time, the combination of the Lavin and Brown patents teaches away from claims 8, 15, 19, and 29.

Therefore, the combination of the Lavin and Brown patent teach access to a single patient's information and do not teach or suggest the subject matter of claims 8, 15, 19, and 29.

Accordingly, it is respectfully submitted that the rejection of claims 8, 15, 19, and 29 as obvious over the Lavin and Brown combination should be reversed.

VIII. Conclusion

Each of the rejections set forth in the final Office Action is improper and should be reversed.

Respectfully submitted,
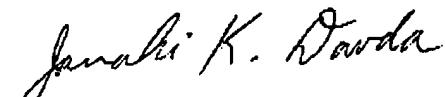
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IX.   Appendix A

The claims on appeal are as follows:

1.   (Previously Presented) A method for maintaining electronic patient medical

information, comprising:

generating one electronic patient data structure consisting of patient identification

information, patient biographical information, medical history information including medical

event information, medication schedule information, appointment schedule information, and log

information;

electronically transmitting the patient data structure between a physician computer and a

portable patient device, wherein the patient data structure is capable of being modified; and

displaying, in the display of the portable computing device, a main menu of selectable

views, wherein the selectable views consist of a patient bio view, a medical history view, a

patient medication schedule view, an appointment schedule view, and a log view, and wherein

the appointment schedule view displayed in the display of the portable computing device differs

from the appointment schedule view that is displayable on a display at the physician computer,

and wherein direct selection of one of the selectable views results in that selected view being

displayed independently of the other selectable views.

3.   (Previously Presented) The method of claim 1, further comprising:

indicating, with the portable patient device, that one scheduled patient medication shown

in the patient medication schedule view was taken, wherein the medication schedule view

provides a calendar display of a medication schedule derived from prescription subrecords in a

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patient record; and

storing the indication that the patient took the scheduled patient medication in the patient data structure in the portable computing device.

4. (Previously Presented) The method of claim 1, further comprising setting an alarm to activate to provide an alert of one scheduled patient medication or appointment, wherein the alarm is set by a patient for whom the alert is scheduled and who is using the patient portable device.

5. (Previously Presented) The method of claim 1, further comprising:

generating log information indicating modifications to information in the patient data structure, wherein the log information is read-only and once generated cannot be altered.

6. (Previously Presented) The method of claim 1, further comprising:

adding, with the physician computer, one of appointment and medication events to the patient data structure, wherein one appointment event indicates a scheduled medical related visit and one medication event indicates a drug prescription, wherein the drug prescription is digitally signed with a physician public key so that a pharmacist may authenticate an electronic prescription; and

transmitting the modified patient data structure to the patient device.

7. (Previously Presented) The method of claim 6, wherein the patient device includes a display, further comprising:

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displaying, in the display of the patient device, in the patient medication schedule view and in the appointment schedule view the added one of appointment and medication events stored in the patient data structure that were added to the patient data structure to allow the patient to review scheduled medication and appointments.

8.   (Previously Presented) The method of claim 6, further comprising:

storing, with the physician computer, patient data structures for multiple patients;

displaying, at the physician computer, an interactive schedule of patient appointments from the appointment schedule view maintained in the patient data structures, wherein appointment events are added to one patient data structure through the displayed interactive schedule of patient appointments, and wherein the displayed interactive schedule of patient appointments displays scheduled appointments for all patient records.

9.   (Original) The method of claim 1, wherein the patient data structure further includes patient insurance billing information that can be used to generate insurance claims for patient services.

10.   (Original) The method of claim 1, further comprising using an additional computer to modify information in the patient data structure and transmit the modified patient data structure to the portable patient device.

11.   (Previously Presented) A medical information system for maintaining electronic patient medical information for use in a physician computer and a portable patient device, the

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physician computer comprising:

a computer readable medium including one electronic patient data structure consisting of patient identification information, patient biographical information, medical history information including medical event information, medication schedule information, appointment schedule information, and log information;

at least one communication port capable of transmitting the patient data structure to the portable patient device and receiving the patient data structure from the portable patient device;

displaying, in the display of the portable computing device, a main menu of selectable views, wherein the selectable views consist of a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view, and wherein the appointment schedule view displayed in the display of the portable computing device differs from the appointment schedule view that is displayable on a display at the physician computer, and wherein direct selection of one of the selectable views results in that selected view being displayed independently of the other selectable views; and

means for modifying information in the patient data structure via at least one of the patient bio view, the medical history view, the patient medication schedule view, and the appointment schedule view, wherein the modified patient data structure is capable of being transmitted to the portable patient device via the communication port.

12. (Previously Presented) The system of claim 11, wherein the physician computer further comprises:

means for displaying the patient medication schedule view and the appointment schedule view stored in the patient data structure to allow the physician to review scheduled medication

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and appointments.

13.   (Original) The system of claim 12, wherein the physician computer further

comprises means for generating log information indicating modifications to information in the

patient data structure, wherein the log information is read-only and once generated cannot be

altered.

14.   (Previously Presented) The system of claim 12, wherein the physician computer

further comprises:

means for adding one of appointment and medication events to the patient data structure,

wherein one appointment event indicates a scheduled medical related visit and one medication

event indicates a drug prescription, wherein the drug prescription is digitally signed; and

transmitting, via the communication port, the modified patient data structure to the

portable patient device.

15.   (Previously Presented) The system of claim 11, wherein the physician computer

further comprises:

means for storing patient data structures for multiple patients;

means for displaying an interactive schedule of patient appointments from appointment

schedule information maintained in the patient data structures, wherein appointment events are

added to one patient data structure through the displayed interactive schedule of patient

appointments, and wherein the displayed interactive schedule of patient appointments displays

scheduled appointments for all patient records.

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16. (Original) The system of claim 11, wherein the patient data structure further includes patient insurance billing information that the physician computer uses to generate insurance claims for patient services.

17. (Previously Presented) A medical information system for maintaining electronic patient medical information for use in a physician computer and a portable patient device, wherein the patient device includes:

computer readable medium including one electronic patient data structure consisting of patient identification information, patient biographical information, medical history information including medical event information, medication schedule information, appointment schedule information, and log information; and

at least one communication port capable for transmitting the patient data structure to the physician computer and receiving the patient data structure from the physician computer, wherein the patient data structure is capable of being modified; and

displaying, in the display of the portable computing device, a main menu of selectable views, wherein the selectable views consist of a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view, and wherein the appointment schedule view displayed in the display of the portable computing device differs from the appointment schedule view that is displayable on a display at the physician computer, and wherein direct selection of one of the selectable views results in that selected view being displayed independently of the other selectable views.

19. (Previously Presented) The system of claim 17, wherein the portable patient

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device further comprises:

means for indicating that one scheduled patient medication was taken, wherein the medication schedule view provides a calendar display of a medication schedule derived from prescription subrecords in a patient record; and

means for storing the indication in the patient data structure that the patient took the scheduled medication.

20.   (Previously Presented) The system of claim 17, wherein the portable patient device further comprises means for setting an alarm to activate to provide an alert of one scheduled patient medication or appointment, wherein the alarm is set by a patient for whom the alert is scheduled and who is using the patient portable device.

21.   (Original) The system claim 17, wherein the portable patient device further comprises means for generating log information indicating modifications to information in the patient data structure, wherein the log information is read-only and once generated cannot be altered.

22.   (Original) The system of claim 17, wherein the patient data structure further includes patient insurance billing information that can be used to generate insurance claims for patient services.

23.   (Previously Presented) The system of claim 17, further comprising an additional computer, wherein the additional computer includes:

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means for transmitting the electronic patient medical information between the additional computer and the portable patient device, wherein the additional computer is capable of modifying information in the patient data structure via at least one of the patient bio view, the medical history view, the patient medication schedule view, and the appointment schedule view and transmitting the modified patient data structure to the portable patient device.

24. (Original) The system of claim 17, wherein the portable patient device comprises one of a smart card, palm computing device, hand-held computing device, and laptop computer.

25. (Previously Presented) An article of manufacture embodied on a computer-readable medium for use in a medical information system to maintain electronic patient medical information for use in a physician computer and a portable patient device, the article of manufacture comprising at least one computer program capable of causing the physician computer to perform:

reading one electronic patient data structure consisting of patient identification information, patient biographical information, medical history information including medical event information, medication schedule information, appointment schedule information, and log information;

transmitting the patient data structure to the portable patient device;

receiving the patient data structure from the portable patient device;

displaying, in the display of the portable computing device, a main menu of selectable views, wherein the selectable views consist of a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view, and wherein

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the appointment schedule view displayed in the display of the portable computing device differs from the appointment schedule view that is displayable on a display at the physician computer, and wherein direct selection of one of the selectable views results in that selected view being displayed independently of the other selectable views; and

modifying information in the patient data structure via at least one of the patient bio view, the medical history view, the patient medication schedule view, and the appointment schedule view, wherein the modified patient data structure is capable of being transmitted to the portable patient device via the communication port.

26.   (Original) The article of manufacture of claim 25, further causing the physician computer to perform:

displaying views of the patient medication and appointment schedule information stored in the patient data structure to allow the physician to review scheduled medication and appointments.

27.   (Original) The article of manufacture of claim 26, further causing the physician computer to perform:

generating log information indicating modifications to information in the patient data structure, wherein the log information is read-only and once generated cannot be altered.

28.   (Previously Presented) The article of manufacture of claim 26, further causing the physician computer to perform:

adding one of appointment and medication events to the patient data structure, wherein

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one appointment event indicates a scheduled medical related visit and one medication event

indicates a drug prescription, wherein the drug prescription is digitally signed; and

 transmitting the modified patient data structure to the portable patient device.

29. (Previously Presented) The article of manufacture of claim 25, further causing the

physician computer to perform:

 storing patient data structures for multiple patients;

 displaying an interactive schedule of patient appointments from appointment schedule

information maintained in the patient data structures, wherein appointment events are added to

one patient data structure through the displayed interactive schedule of patient appointments, and

wherein the displayed interactive schedule of patient appointments displays scheduled

appointments for all patient records.

30. (Original) The article of manufacture of claim 25, wherein the patient data

structure further includes patient insurance billing information, further causing the physician

computer to perform:

 accessing the insurance billing information from the patient data structure to use in billing

medical services to the patient's insurance company.

31. (Previously Presented) An article of manufacture embodied on a computer-

readable medium for use in a medical information system to maintain electronic patient medical

information for use in a physician computer and a portable patient device, the article of

manufacture comprising at least one computer program capable of causing the portable patient

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device to perform:

storing one electronic patient data structure including patient biographical information and one of medical history information including medical event information, medication schedule information, and appointment schedule information;

transmitting the patient data structure to the physician computer;

receiving the patient data structure from the physician computer, wherein the patient data structure is capable of being modified; and

displaying, in the display of the portable computing device, a main menu of selectable views, wherein the selectable views comprise a patient bio view, a medical history view, a patient medication schedule view, an appointment schedule view, and a log view, and wherein the appointment schedule view displayed in the display of the portable computing device differs from the appointment schedule view that is displayable on a display at the physician computer.

33.   (Previously Presented) The article of manufacture of claim 31, further causing the patient device to perform:

indicating that one scheduled patient medication was taken, wherein the medication schedule view provides a calendar display of a medication schedule derived from prescription subrecords in a patient record; and

storing the indication in the patient data structure that the patient took the scheduled medication.

34.   (Previously Presented) The article of manufacture of claim 31, further comprising setting an alarm to activate to provide an alert of one scheduled patient medication or

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appointment, wherein the alarm is set by a patient for whom the alert is scheduled and who is using the patient portable device.

35. (Original) The article of manufacture of claim 31, further causing the patient device to perform:

generating log information indicating modifications to information in the patient data structure, wherein the log information is read-only and once generated cannot be altered at the physician computer or by the patient device.

36. (Previously Presented) The article of manufacture of claim 31, further causing the patient device to perform:

transmitting the electronic patient medical information to an additional computer, wherein the additional computer is capable of modifying information in the patient data structure via at least one of the patient bio view, the medical history view, the patient medication schedule view, and the appointment schedule view and transmitting the modified patient data structure to the portable device.

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